RESPONSIVE REMARKS

Preliminary Notes

We respectfully request that, if the Examiner deems that we have not adequately responded to any portion of the Office Action, to any claim rejection, or to any document citation, we respectfully request the Examiner treat that as inadvertent, and allow an appropriate remedy.

Our remarks with respect to cited documents and claims should be clear. However, by these remarks, and by any amendments, we make no admission that facts and law adequately support any rejections made by the Office Action.

We intend, by amendments to the claims, only to clarify those claims, and to accommodate expressions apparently enjoying preferred treatment by the Office, not to change their scope. However, we strongly suggest the Examiner should make his own independent determination of whether any claim scope is changed.

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The Cited Art

The Office Action applies only one document in its rejection of the claims, specifically, **Unger** (US Pat. Appl. 2002/0,196,939). Moreover, the Office Action applies only a few paragraphs of **Unger**, specifically its Abstract and paragraphs [0008], [0053], [0108] and [0127], in its rejection of the claims. Our remarks regarding this document are specifically directed to our understanding of that document and those cited paragraphs. While we believe our remarks regarding that document and those cited paragraphs are, for the topic of this discussion, accurate and complete, the Examiner is encouraged to make his own independent determination of what the document shows.

Unger shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes, in which each different type of set-top box has its own type of encryption/decryption technique. **Unger** attempts to permit multiple encryption/decryption techniques, in sending the same signal to different types of set-top boxes by encrypting a portion of the signal for each different type of set-top box with a different encryption/decryption technique, without having to encrypt and transmit the entire television signal for each possible different type of set-top box. **Unger's** purpose is therefore to <u>conserve bandwidth</u>. See **Unger**, at ¶ [0037]. Each different type of set-top box still needs the entire television signal to apply its own encryption/decryption technique, thus decoding the television signal for presentation.

Unger therefore does <u>not</u> show, any capability, or any suggestion thereof, for receiving set-top boxes to distinguish between presenting the entire television signal and decoding only so much of that television signal to allow seeking to designated locations within that television signal. Rather, **Unger** is <u>unable</u> to allow that capability.

The Claims

Claim 1

As noted above, the Office Action rejected claim 1 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respect-fully traverse.

Claim 1 recites in part:

> encrypting a portion of that digital content, less than the en-tire digital content format representing that media stream, the por-tion of the digital content that is encrypted being required for pres-entation of the media stream; and
> not encrypting a portion of that digital content, less than the entire digital content format representing that media stream, the portion of the digital content that is not encrypted being required for locating or seeking to a selected position in the media stream represented by the digital content;
> wherein the encrypted version of that digital content is sub-stantially unchanged in formatting parameters from an unen-crypted version of that digital content.

As noted above, **Unger** does not show or suggest the possibility of "the portion of the digital content that is encrypted being required for presentation of the media stream; and ... the portion of the digital content that is not encrypted being required for locating or seeking to a selected position in the media stream represented by the digital content". Rather, as shown in ¶ [0053], **Unger** shows only a technique it calls "time slicing", in which those portions of its television signal are "encrypted on a time dependent basis in a manner that disrupts viewing of the program".

While **Unger** does claim that its television signal might include "partially encrypted video and clear audio, clear video and partially encrypted audio or partially encrypted video and audio", **Unger** does not show or suggest that its television signal might include encrypted portions "required for presentation of the media stream" and unencrypted portions "required for locating or seeking to a selected position in the media stream represented by the digital content". Rather, **Unger** shows only that the "duration of the time slice ... can be selected to meet any suitable desired balance of bandwidth usage, security against hackers".

> [0053] Another embodiment consistent with the present invention is referred to herein as time slicing and is illustrated in FIG. 3 as system 200. In this embodiment, a portion of each program is en-crypted on a time dependent basis in a manner that disrupts view-ing of the program unless the user has paid for the programming. This embodiment of the invention can be implemented as partially encrypted video and clear audio, clear video and partially en-

crypted audio or partially encrypted video and audio. <u>The duration of the time slice that is encrypted, taken as a percentage of the total time, can be selected to meet any suitable desired balance of bandwidth usage, security against hackers.</u> In general, under any of the embodiments described herein, less than 100 percent of the content is encrypted to produce a desired partial encryption. The following example details partially encrypted video and audio.

Accordingly, this claim is allowable.

<u>Claims 2-3, 5, 7 and 12-15</u>

Claims 2-3, 5, 7 and 12-15 depend from claim 1.

Accordingly, these claims are allowable.

<u>Claim 4</u>

As noted above, the Office Action rejected claim 1 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 4 recites in part:

refraining from encrypting at least some audio or video data using that block-substitution cipher, wherein an amount of audio or video data not encrypted is less than a block size for that block-substitution cipher

As noted above, **Unger** shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes. **Unger** shows "time slicing" to encrypt only a small portion of its television signal for each time slice, thus leaving the vast majority of its television signal unencrypted. **Unger** specifically states that no more than 4 bytes (its block encryption size) of each packet (each packet including 188 bytes), are encrypted. Thus, 184 bytes are left **un**encrypted. Claim 4 recited text, "an amount of audio or video data <u>not encrypted is less than a block size</u> for that block-substitution cipher", is not shown or suggested by **Unger**.

> [0127] The host overhead is estimated to be about 1% of the bandwidth of the CPU. In the worst case, this is equivalent to 40K bytes/Second for a 15 Mbit/S video stream. This reduction is possible since <u>at most only 4 bytes of each packet is evaluated and the location is on 188 byte intervals</u> so the intervening data does not have to be considered. Each packet header in SDRAM can therefore be directly accessed through simple memory pointer manipulation. Additionally, Packets are cached in blocks and evaluated en masse to reduce task switching of the host. This would eliminate an interrupt to other tasks upon the reception of each new packet. This may produce a increased latency for starting decode of a stream upon channel change to allow time for cache fill. This may be negligible depending upon the allocated SDRAM cache buffer size.

Claim 4 also depends from claim 1.

Accordingly, this claim is allowable.

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Claim 6

As noted above, the Office Action rejected claim 6 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 6 recites in part:

refraining from encrypting formatting information

As noted above, **Unger** shows only a system in which "time slicing" to encrypt only a small portion of its television signal for each time slice, thus leaving the vast majority of its television signal unencrypted. **Unger** does not show or suggest, "refraining from encrypting at least some formatting information". Rather, **Unger's** technique of "time slicing", at ¶ [0053], would force **Unger's** system to encrypt at least some formatting information (since **Unger's** "time slicing" technique does not distinguish formatting information), as its set of time slices would almost certainly fall on at least some formatting information.

Claim 6 also depends from claim 1.

Accordingly, this claim is allowable.

<u>Claim 8</u>

As noted above, the Office Action rejected claim 8 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 8 recites in part:

> the step of encrypting is applied only to that portion of the digital content representing audio and video information

As noted above, **Unger** shows only a system in which "time slicing" to encrypt only a small portion of its television signal for each time slice, thus leaving the vast majority of its television signal unencrypted. **Unger** does not distinguish between "audio and video information" and "techniques by which that information is formatted or supplemented". Thus, **Unger** does not show or suggest, applying encryption "only to that portion of the digital content representing audio and video information".

Claim 8 also depends from claim 1.

Accordingly, this claim is allowable.

Claim 9

As noted above, the Office Action rejected claim 9 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 9 recites in part:

the step of encrypting is applied only to that portion of the digital content representing audio and video information

Claim 9 is thus allowable for reasons similar to claim 8.

Claim 9 also depends from claim 1.

Accordingly, this claim is allowable.

Claim 10

As noted above, the Office Action rejected claim 10 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

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Claim 10 recites in part:

the step of encrypting is not applied to that portion of the digital content representing other than audio and video information

Claim 10 is thus allowable for reasons similar to claim 8.

Claim 10 also depends from claim 1.

Accordingly, this claim is allowable.

Claim 11

As noted above, the Office Action rejected claim 11 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 11 recites in part:

the media stream includes at least one of: still media, an illustration, a database

As noted above, **Unger** shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes, in which

each different type of set-top box has its own type of encryption/decryption technique. Moreover, **Unger** specifically recites that the television signal is encoded using MPEG. Accordingly, **Unger** does not show or suggest a media stream including still media, an illustration, or a database.

Claim 11 also depends from claim 1.

Accordingly, this claim is allowable.

The Examiner is requested to take notice that, by the doctrine of claim differentiation, claim 11 must differ from claim 1. Accordingly, while claim 11 does not recite "a movie, animation, sound ... a picture ... a collection of information", claim 1 is not limited in that regard.

Claim 16

As noted above, the Office Action rejected claim 16 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 16 recites in part:

> wherein the decryptor is protected by a relatively-higher degree of security than the decoder.

As noted above, **Unger** shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes, in which each different type of set-top box has its own type of encryption/decryption technique. The Office Action, at § 17, states that "the decryptor is protected by a relatively-higher degree of security than the decoder", citing **Unger** [Abstract] and ¶ [0053].

We are at a loss to see where in **Unger**, [Abstract] and ¶ [0053], there is any inkling of a statement that "the decryptor is protected by a relatively-higher degree of security than the decoder". Those paragraphs read:

> [Abstract] An encryption arrangement for multiple encryption of television programs. A system according to embodiments of the present invention multiple encrypts only a portion of the data required for full presentation of a television program to permit coexistence of multiple conditional access encryption systems associated with multiple manufacturer's set-top boxes within a single system. By only encrypting a portion of the program, dramatically less bandwidth is consumed than the alternative of multiple encryption of all program data, thus permitting a larger number of programs to be carried over the same bandwidth while permitting coexistence of multiple conditional access systems in a single cable television system.

> [0053] Another embodiment consistent with the present invention is referred to herein as time slicing and is illustrated in FIG. 3 as system 200. In this embodiment, a portion of each program is encrypted on a time dependent basis in a manner that disrupts viewing of the program unless the user has paid for the programming. This embodiment of the invention can be implemented as partially

encrypted video and clear audio, clear video and partially encrypted audio or partially encrypted video and audio. The duration of the time slice that is encrypted, taken as a percentage of the total time, can be selected to meet any suitable desired balance of bandwidth usage, security against hackers. In general, under any of the embodiments described herein, less than 100 percent of the content is encrypted to produce a desired partial encryption. The following example details partially encrypted video and audio.

In these cited paragraphs, we cannot find any inkling of <u>any</u> statement that <u>any</u> part of **Unger** is "protected by a relatively-higher degree of security" than <u>any</u> other part of **Unger**. The phrase "higher degree of security" does not even appear in these paragraphs, nor are we aware that it appears anywhere in **Unger** with the same meaning.

Accordingly, we respectfully request the Examiner to present a reasoned statement regarding just <u>exactly</u> where in **Unger** there is sufficient disclosure for the Office Action to support this rejection. Rejections are required by law to be clearly explained. 37 C.F.R. § 1.104(c)(2); MANUAL OF PATENT EXAMINING PROCEDURE § 707. We believe this one is not.

Accordingly, we request withdrawal of the rejection. This claim is allowable.

<u>Claims 17-18 and 24</u>

Claims 17-18 and 24 depend from claim 16.

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Accordingly, these claims are allowable.

Claim 19

As noted above, the Office Action rejected claim 19 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 19 recites in part:

the decoder is included in a first selected set of hardware or software, the first selected set being trusted; and
the decryptor and the key are included in a second selected set of hardware or software, the second selected set being relatively more trusted than the first selected set.

As noted above, **Unger** shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes, in which each different type of set-top box has its own type of encryption/decryption technique.

The Office Action, at § 20, states that this recited text is shown by **Unger** ¶¶ [0108] and [0127].

We are at a loss to see where in **Unger**, ¶¶ [0108] and [0127], there is any inkling of the recited claim text. Those paragraphs read:

[0108] In addition to the assignment of a PID for each program component or selected portion thereof, a new PID may be assigned to tag ECM data used in the second encryption technique. Each PID number assigned can be noted as a user defined stream type to prevent disrupting operation of a legacy STB. MPEG defines a reserved block of such numbers for user defined data stream types.

[0127] The host overhead is estimated to be about 1% of the band-width of the CPU. In the worst case, this is equivalent to 40K bytes/Second for a 15 Mbit/S video stream. This reduction is possible since at most only 4 bytes of each packet is evaluated and the location is on 188 byte intervals so the intervening data does not have to be considered. Each packet header in SDRAM can therefore be directly accessed through simple memory pointer manipulation. Additionally, Packets are cached in blocks and evaluated en masse to reduce task switching of the host. This would eliminate an interrupt to other tasks upon the reception of each new packet. This may produce a increased latency for starting decode of a stream upon channel change to allow time for cache fill. This may be negligible depending upon the allocated SDRAM cache buffer size.

In these cited paragraphs, we cannot find any inkling of <u>any</u> showing or suggestion of a decoder and decryptor as recited in claim 19. The phrase "relatively more trusted" does not even appear in these paragraphs, nor are we aware that it appears anywhere in **Unger** with the same meaning.

Accordingly, we respectfully request the Examiner to present a reasoned statement regarding just <u>exactly</u> where in **Unger** there is sufficient disclosure for the Office Action to support this rejection. Rejections are required

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by law to be clearly explained. 37 C.F.R. § 1.104(c)(2); MANUAL OF PATENT EXAM-

INING PROCEDURE § 707. We believe this one is not.

Accordingly, we request withdrawal of the rejection.

Claim 19 also depends from claim 16.

Accordingly, this claim is allowable.

Claim 20

As noted above, the Office Action rejected claim 20 on 35 U.S.C. §

102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respect-

fully traverse.

Claim 20 recites in part:

wherein the decoder is responsive to the formatting information to
present at least some metadata about one or more media streams without the
decoder having access to the presentation information.

As noted above, **Unger** shows only a system in which a television

signal is broadcast to a plurality of different types of set-top boxes, in which

each different type of set-top box has its own type of encryption/decryption

technique. Each different type of set-top box still needs the entire television

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signal to apply its own encryption/decryption technique, thus decoding the television signal for presentation.

Unger therefore does <u>not</u> show, any capability, or any suggestion thereof, for receiving set-top boxes to distinguish between presenting the entire television signal and decoding only so much of that television signal to allow operations "responsive to the formatting information ... without the decoder having access to the presentation information". Rather, **Unger** is <u>unable</u> to allow that capability.

The Office Action, at § 20, states that this recited text is shown by **Unger** ¶¶ [0108] and [0127].

We are at a loss to see where in **Unger,** ¶¶ [0108] and [0127], there is any inkling of the recited claim text. Those paragraphs read:

> [0108] In addition to the assignment of a PID for each program component or selected portion thereof, a new PID may be assigned to tag ECM data used in the second encryption technique. Each PID number assigned can be noted as a user defined stream type to prevent disrupting operation of a legacy STB. MPEG defines a reserved block of such numbers for user defined data stream types.

> [0127] The host overhead is estimated to be about 1% of the bandwidth of the CPU. In the worst case, this is equivalent to 40K bytes/Second for a 15 Mbit/S video stream. This reduction is possible since at most only 4 bytes of each packet is evaluated and the location is on 188 byte intervals so the intervening data does not

have to be considered. Each packet header in SDRAM can therefore be directly accessed through simple memory pointer manipulation. Additionally, Packets are cached in blocks and evaluated en masse to reduce task switching of the host. This would eliminate an interrupt to other tasks upon the reception of each new packet. This may produce a increased latency for starting decode of a stream upon channel change to allow time for cache fill. This may be negligible depending upon the allocated SDRAM cache buffer size.

In these cited paragraphs, we cannot find any inkling of <u>any</u> showing or suggestion of a decoder "responsive to the formatting information ... without the decoder having access to the presentation information". The cited paragraph merely describes decrypting equipment that is able, given the entire television signal, to conduct normal television presentation.

Accordingly, we respectfully request the Examiner to present a reasoned statement regarding just <u>exactly</u> where in **Unger** there is sufficient disclosure for the Office Action to support this rejection. Rejections are required by law to be clearly explained. 37 C.F.R. § 1.104(c)(2); MANUAL OF PATENT EXAMINING PROCEDURE § 707. We believe this one is not.

Accordingly, we request withdrawal of the rejection.

Claim 20 also depends from claim 16.

Accordingly, this claim is allowable.

Claim 21

As noted above, the Office Action rejected claim 21 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 21 recites in part:

wherein the decoder is responsive to the formatting information to provide at least one of the following functions without the decoder having access to the presentation information ...

For reasons similar to claim 20, we respectfully request the Examiner to present a reasoned statement regarding just <u>exactly</u> where in **Unger** there is sufficient disclosure for the Office Action to support this rejection. Rejections are required by law to be clearly explained. 37 C.F.R. § 1.104(c)(2); MANUAL OF PATENT EXAMINING PROCEDURE § 707. We believe this one is not.

Accordingly, we request withdrawal of the rejection.

Claim 21 also depends from claim 16.

Accordingly, this claim is allowable.

<u>Claim 22</u>

As noted above, the Office Action rejected claim 22 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 22 is allowable for reasons similar to claim 11.

Claim 22 also depends from claim 16.

Accordingly, this claim is allowable.

The Examiner is requested to take notice that, by the doctrine of claim differentiation, claim 22 must differ from claim 16. Accordingly, while claim 22 does not recite "a movie, animation, sound ... a picture ... a collection of information", claim 16 is not limited in that regard.

<u>Claim 23</u>

As noted above, the Office Action rejected claim 23 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 23 is allowable for reasons similar to claims 16 and 19.

Claim 23 also depends from claim 16.

Accordingly, this claim is allowable.

Claim 25

As noted above, the Office Action rejected claim 25 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 25 recites in part:

the first media stream includes information in a first natural language and the second media stream includes information in a second natural language

As noted above, **Unger** shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes, in which each different type of set-top box has its own type of encryption/decryption technique. **Unger** does <u>not</u> show or suggest any distinction between different media streams in different natural languages (e.g., English and French).

The Office Action, at § 20, states that this recited text is shown by **Unger** ¶ [0053].

We are at a loss to see where in **Unger**, ¶ [0053], there is any inkling of the recited claim text. We cannot find any reference to a system in which "the first media stream includes information in a first natural language and the second media stream includes information in a second natural language".

Accordingly, we respectfully request the Examiner to present a reasoned statement regarding just <u>exactly</u> where in **Unger** there is sufficient disclosure for the Office Action to support this rejection. Rejections are required by law to be clearly explained. 37 C.F.R. § 1.104(c)(2); MANUAL OF PATENT EXAMINING PROCEDURE § 707. We believe this one is not.

Accordingly, we request withdrawal of the rejection.

Claim 25 also depends from claim 16.

Accordingly, this claim is allowable.

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Claim 26

As noted above, the Office Action rejected claim 26 on 35 U.S.C. § 102(a) grounds, as allegedly anticipated by **Unger**. As noted above, we respectfully traverse.

Claim 26 recites in part:

> encoding a media stream into a digital content format representing that media stream, that digital content format having a set of information nodes, those information nodes being disposed in at least a partial ordering;
> encrypting a portion of that digital content, the portion being encrypted less than the entire digital content format representing that media stream, the portion of the digital content that is encrypted being required for presentation of the media stream;
> wherein the unencrypted portion of that digital content is substantially closed in a direction under that partial ordering, whereby it is possible to decode the unencrypted portion of that digital content without having to decrypt it.

As noted above, **Unger** shows only a system in which a television signal is broadcast to a plurality of different types of set-top boxes, in which each different type of set-top box has its own type of encryption/decryption technique. While **Unger** does show a digital content format with information nodes in at least a partial ordering (MPEG), and while **Unger** does show encrypting only a portion of that MPEG data, **Unger** does <u>not</u> show or suggest that the "unencrypted portion of that digital content is substantially closed in a direction under that partial ordering, whereby it is possible to decode the unencrypted portion of that digital content without having to decrypt it".

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The Office Action, at § 20, states that this recited text is shown by **Unger** ¶¶ [0008] and [0053].

We are at a loss to see where in **Unger**, ¶¶ [0008] and [0053], there is any inkling of the recited claim text. We cannot find any reference to a system in which "unencrypted portion of that digital content is substantially closed in a direction under that partial ordering, whereby it is possible to decode the unencrypted portion of that digital content without having to decrypt it".

Accordingly, we respectfully request the Examiner to present a reasoned statement regarding just <u>exactly</u> where in **Unger** there is sufficient disclosure for the Office Action to support this rejection. Rejections are required by law to be clearly explained. 37 C.F.R. § 1.104(c)(2); MANUAL OF PATENT EXAMINING PROCEDURE § 707. We believe this one is not.

Accordingly, we request withdrawal of the rejection.

Claim 26 also depends from claim 16.

Accordingly, this claim is allowable.

CONCLUSION

As described above, all claims should be allowable in their present form. Reconsideration and withdrawal of all rejections, and early allowance, are respectfully requested.
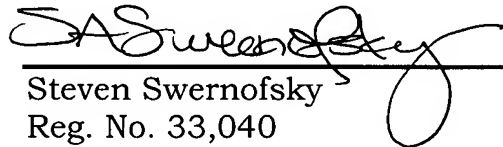
We have made several requests that the Office Action be clarified to present a reasoned statement regarding where in the cited documents there is any showing or suggestion of facts sufficient to support a rejection. Accordingly, we respectfully request that if the Examiner maintains those rejections, that those rejections <u>not</u> be made final, on the grounds that we will not have had adequate notice to respond to those rejections, and will therefore not have had due process.

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Applicant's attorney can be reached at (650) 947-0700 x306, or by email at sasw@swernofsky.com. The Examiner is encouraged to contact Applicant's attorney if there are any questions, or if this application can be advanced to issuance in any way.

Respectfully submitted,

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